FIG. 1

1   DRY BATTERY

ACCUMULATOR BATTERY

SOLAR BATTERY

5 21   FISHBONE SENSOR

22   AMPLIFYING CIRCUIT

22a   CACHE MEMORY

23   EXTERNAL SWITCH CIRCUIT

24   EXTERNAL ANTENNA

10 26   I/O CIRCUIT

31   INTERNAL ANTENNA

32   INTERNAL SWITCH CIRCUIT

15 FIG. 3

SIGNAL SENDING PROCESS

S101   WRITE GAIN IN EEPROM IN CACHE MEMORY

S102   OUTPUT START SIGNAL

S103   CONNECT SIGNAL SUPPLY PATH FOR PROCESS TARGET CANTILEVER

20 TO ANTENNA

S104   SEND SIGNAL FROM PROCESS TARGET CANTILEVER

S105   ALL CANTILEVERS HAVE BEEN PROCESSED?

S106   OUTPUT END SIGNAL

25

FIG. 4

SIGNAL RECEPTION PROCESS

S201   CONNECT SIGNAL SUPPLY TARGET ELECTRODE TO ANTENNA

S202   SUPPLY SIGNAL TO SUPPLY TARGET ELECTRODE

S203   END SIGNAL HAS BEEN SUPPLIED?

       END

5

       FIG. 5

       1   DRY BATTERY

           ACCUMULATOR BATTERY

10   SOLAR BATTERY

       21 FISHBONE SENSOR

       22 AMPLIFYING CIRCUIT

       22a CACHE MEMORY

       23 EXTERNAL SWITCH CIRCUIT

15 24 EXTERNAL ANTENNA

       26 I/O CIRCUIT

       31 INTERNAL ANTENNA
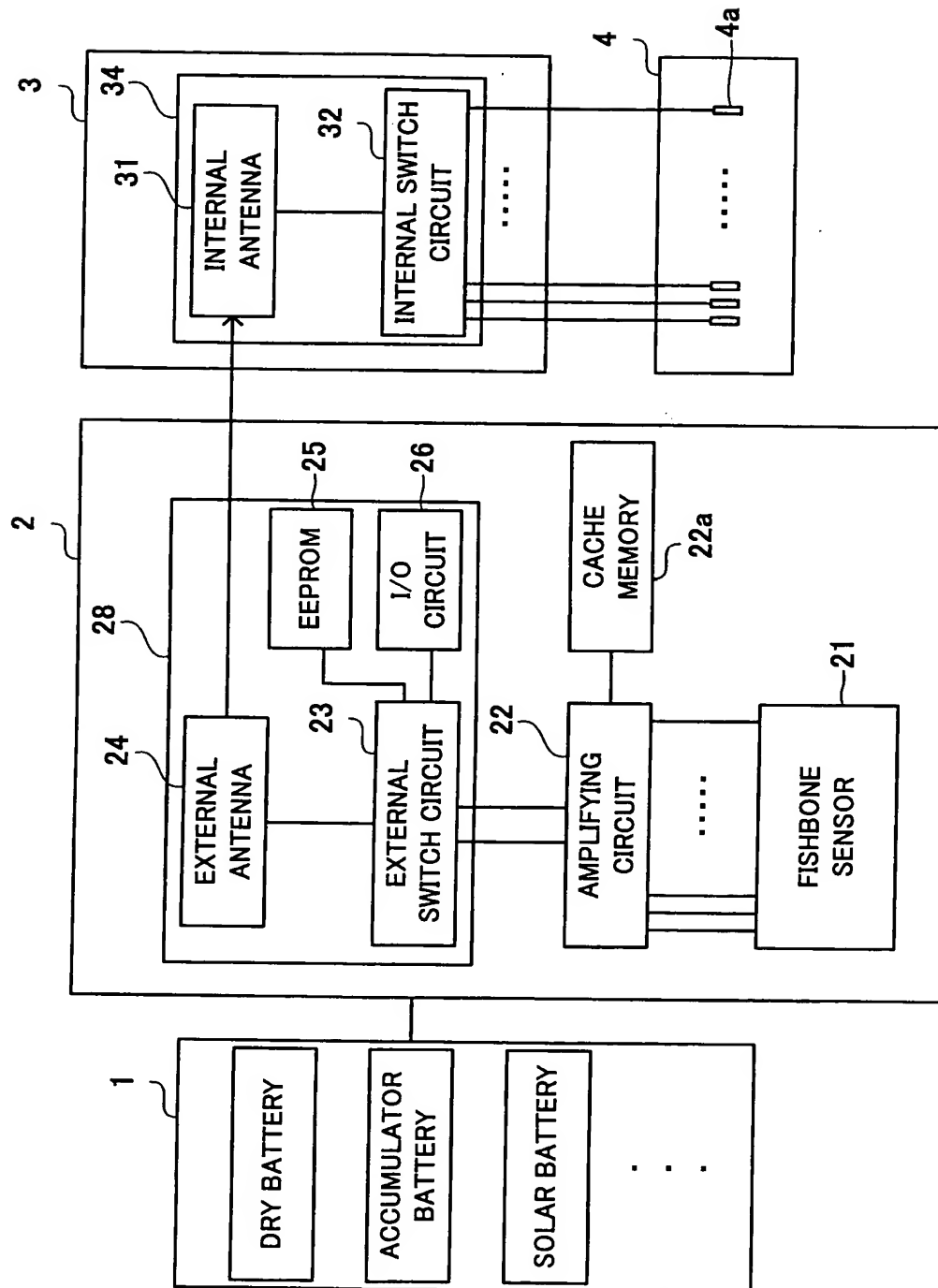
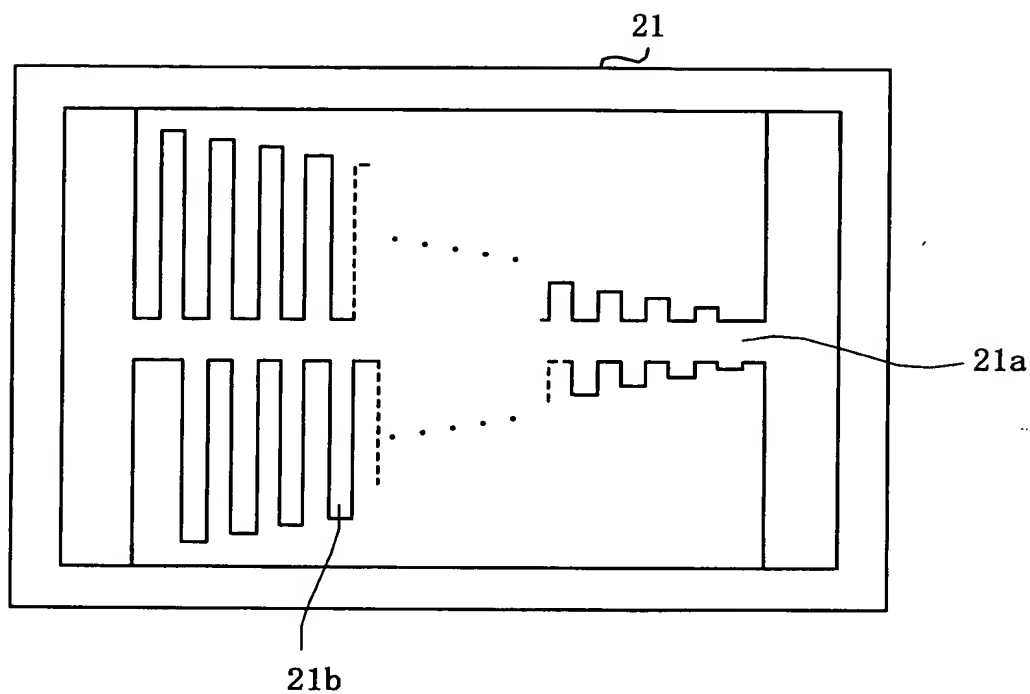   32 INTERNAL SWITCH CIRCUIT
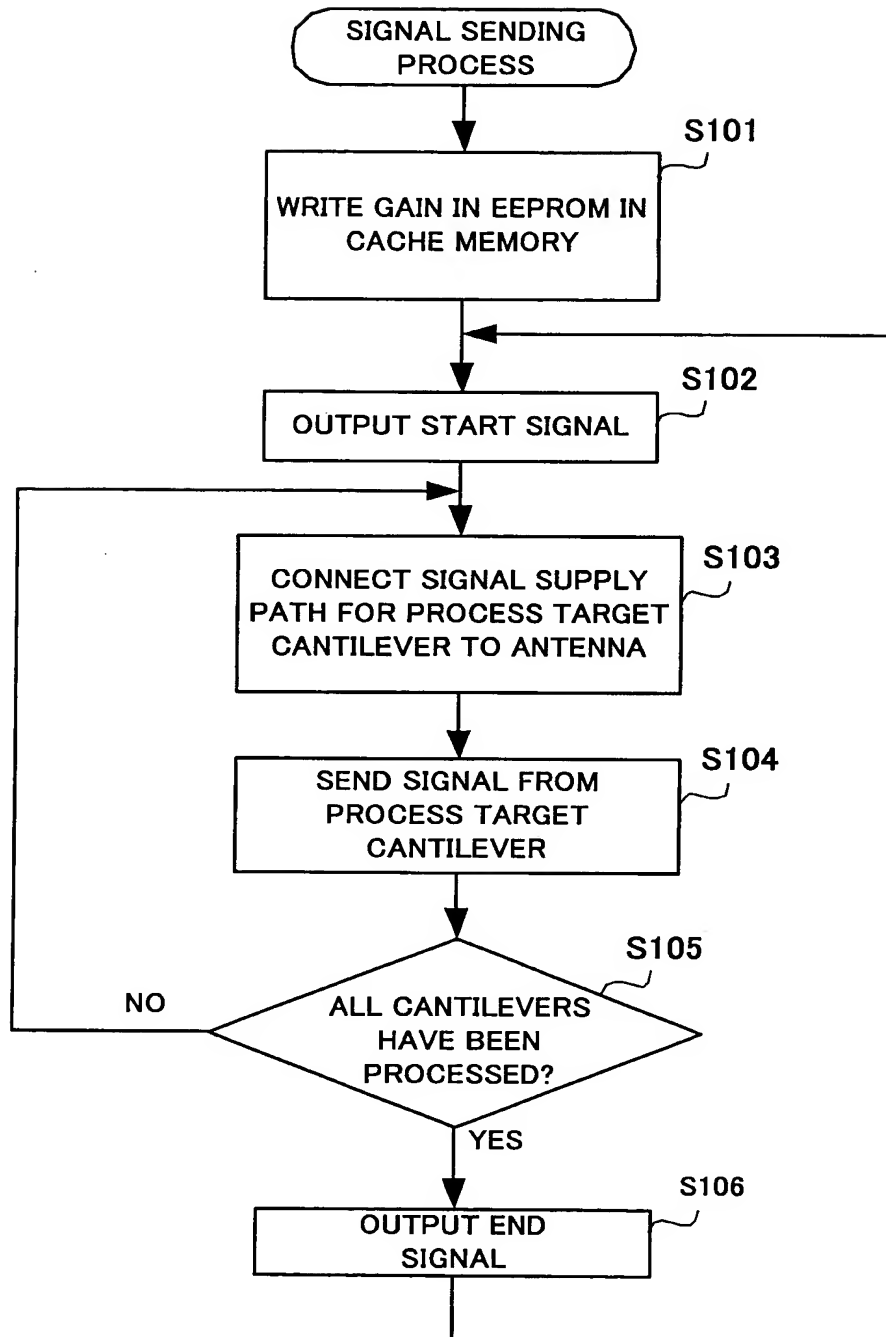
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FIG.1

FIG.2
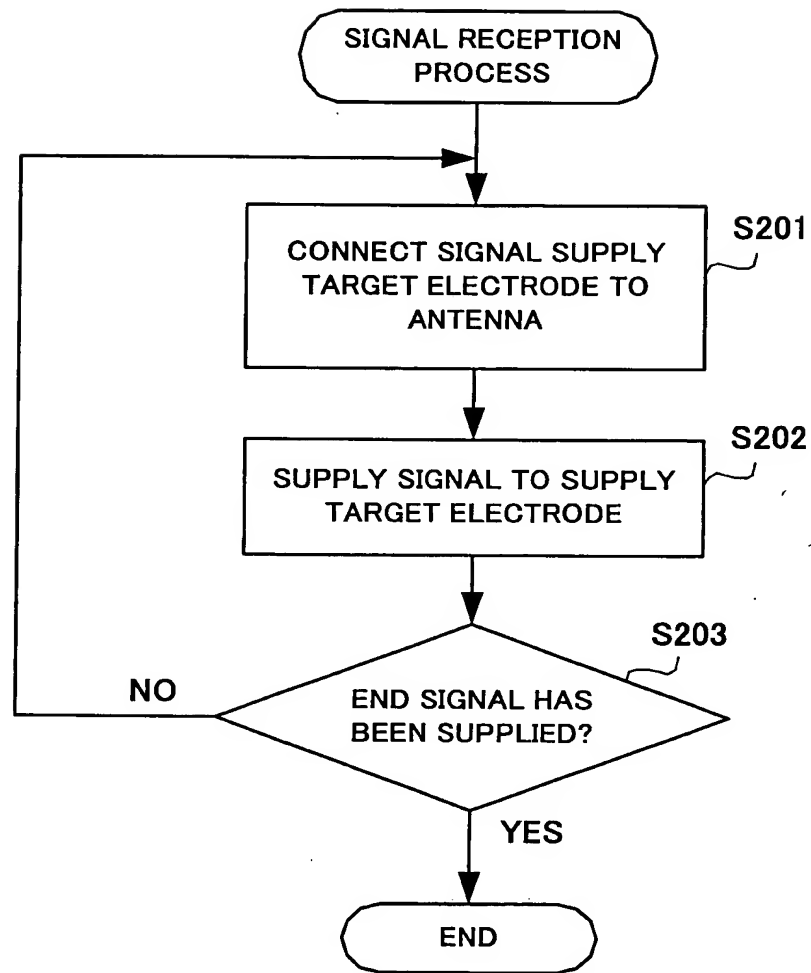
```
┌─────────────────────────┐
│     SIGNAL SENDING      │
│        PROCESS          │
└─────────────────────────┘
              │
              ▼                    S101
┌─────────────────────────┐
│  WRITE GAIN IN EEPROM IN │
│      CACHE MEMORY        │
└─────────────────────────┘
              │
              ▼                    S102
┌─────────────────────────┐
│    OUTPUT START SIGNAL   │
└─────────────────────────┘
              │
              ▼                    S103
┌─────────────────────────┐
│   CONNECT SIGNAL SUPPLY  │
│  PATH FOR PROCESS TARGET │
│   CANTILEVER TO ANTENNA  │
└─────────────────────────┘
              │
              ▼                    S104
┌─────────────────────────┐
│    SEND SIGNAL FROM      │
│    PROCESS TARGET        │
│      CANTILEVER          │
└─────────────────────────┘
              │
              ▼                    S105
         ◇─────────◇
   NO   ALL CANTILEVERS
◀──────  HAVE BEEN
        PROCESSED?
         ◇─────────◇
              │ YES
              ▼                    S106
┌─────────────────────────┐
│      OUTPUT END          │
│       SIGNAL             │
└─────────────────────────┘
```

FIG.3

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FIG.4

FIG.5